

Begin

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626

TSUKERBERG, L.I.

Work capacity of patients following excision of the larynx in
cancer. Vop. onk. 6 no.6:33-40 Je '60. (MIRA 14:3)
(LARYNX--CANCER) (DISABILITY EVALUATION)

TSUKERBERG, L.I.; RONZIN, A.D.

Movements of the vocal cords in health and in pathology. Trudy
VNIIMIO no.3:154-156 '63 (MIRA 18:2)

TSUKERBERG, L.I.

Respiratory function of the larynx. Trudy mol. nauch. sotr.
MONIKI no.1:58-60 '59 (MIRA 16:11)

Respiration in patients following complete excision of the
larynx due to cancer. Ibid.:61-64

1. Iz Otorinolaringologicheskoy kliniki (zav.-prof. I.Ya.
Sendul'skiy) Moskovskogo oblastnogo nauchno-issledovatel'sko-
go klinicheskogo instituta imeni Vladimirskogo.

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TSUKERBERG, L.I.

Problem of cerebellar abscesses. Vest. oto-rin. 16 no. 2: 57-60
Mr-Ap '54. (MLBA 7:6)

1. Iz otdeleniya bolezney ucha, gorla i nosa (sav. V.V. Geliko-
nova) Respublikanskoy bol'nitsy Mordovskoy ASSR v Saranske.
(CEREBELLUM, abscess,) (ABSCISS,
*cerebellum)

TSUKERBERG, L.I.

Influence of laryngectomy on pulmonary reception. Vest. otorin.
22 no.1:48-51 Ja-F '60. (MIRA 14:5)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. - prof. I.Ya.
Sendul'skiy) i nauchno-eksperimental'nogo otdela (zav. - prof.
G.P.Konradi) Moskovskogo oblastnogo nauchno-issledovatel'skogo
klinicheskogo instituta imeni M.F.Vladimirovskogo.
(LARYNX-SURGERY) (RESPIRATION)

TSUKERBERG, L. I.: ^{Cand} Master Med Sci (diss) -- "The physiological aspects of
respiration following complete removal of the larynx". Moscow, 1958. 14 pp
(Acad Med Sci USSR), 200 copies (KL, No 1, 1959, 125)

TSUKERBERG, L.I.

Respiratory function in patients after laryngectomy [with summary
in English]. Vest.oto-rin. 20 no.5:91-95 S-O '58 (MIRA 11:12)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. - prof.
I.Ya. Sendul'skiy) i eksperimental'nogo otdela (zav. prof. G.P. Konradi)
Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo
instituta.

(LARYNX, surgery

excis., postop. funct., tests of resp. (Rus))

(RESPIRATION, function tests

after laryngectomy in humans (Rus))

ARKHANGEL'SKIY, V.M.; AFANAS'YEV, L.L., doktor tekhn. nauk;
DEKHTERINSKIY, L.V.; ILARIONOV, V.A.; SERGEYEV, N.M.;
TSUKERBERG, S.M.; ANOKHIN, V.I., kand. tekhn.nauk,
retsenzent; TSETENKO, V.G., inzh., retsenzent;
YEGORKINA, L.I., red.izd-va; PAKHIMSON, V.A., red. izd-va;
SOKOLOVA, T.F., tekhn. red.

[Motor vehicles; design, operation and repair] Avtomobili;
ustroistvo, ekspluatatsiia i remont. Moskva, Izd-vo
"Mashinostroenie," 1964. 510 p. (MIRA 17:3)

TSUKERBERG, S.M.; NENAKHOV, B.V.

Testing of automobile tires. Kauch. i rez. 24 no.10:40-43 '65.
(MIRA 18:10)

1. Nauchno-issledovatel'skiy institut shinncy promyshlennosti.

ARKHANGEL'SKIY, V.M.; AFANAS'YEV, L.L.; doktor tekhn. nauk.;
ILARIONOV, V.A.; SERGEYEV, N.N.; TSUKERBERG, S.M.,
DEKHTERINSKIY, L.V.; ANOKHIN, V.I., kand. tekhn. nauk,
retsenzent; TSETENKO, V.G., retsenzent

[Motor vehicles; their design, operation and repair] Avto-
mobili; ustroistvo, ekspluatatsiia i remont. Moskva, Ma-
shinostroenie, 1965. 510 p. (MIRA 18:8)

L 04481-67 EWT(m)/EMP(j) IJP(c) RM

ACC NR: AP6006516

(A)

SOURCE CODE: UR/0113/65/000/011/0028/0031

AUTHOR: Tsukerberg, S. M. (Candidate of technical sciences); Gordon, R. K.

9

ORG: NII of the tire industry (NII shinn. promyshlennosti)

B

TITLE: Determining the operational properties of automobile tires by simulation

SOURCE: Avtomobil'naya promyshlennost', no. 11, 1965, 28-31

TOPIC TAGS: tire, ~~simulation~~, dimension analysis, torque, model theory, model test, automotive industry, *TORSION STRESS, IMPACT STRESS, ELASTICITY*

ABSTRACT: The authors use the third theorem of dimensional analysis as the basis for a study of automobile tire operational characteristics. A differential equation is given for the equilibrium of an element of the rubber-cord shell of revolution loaded by internal air pressure and an external load. This expression has not been solved and the authors use the second theorem of dimensional analysis to obtain its solution. Six parameters are given for the tire model. Difficulty is encountered in modeling cord thickness. This is eliminated by using the same cord thickness both in the model and in full-scale testing. The experimental unit for determining some of the operational characteristics of tires is given. It consists of four parts: power, loading, support and measuring. The power unit transmits torque to the wheel with the tire model and varies its rpm. The loading part applies vertical, tangential and lateral

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UDC: 629.11.012.5.001.57

L 04481-67

ACC NR: AP6006516

loading to the tire model. The support part is a plate with road surface specimens which moves in a horizontal direction with wheel rotation. The measuring part determines the torque transmitted to the tire model wheel shaft, as well as the load, tractive force and tire sag. This unit can also determine the elastic and traction-contact characteristics and losses on rolling resistance of the tire model. The radial and lateral rigidity of the tire model are determined. A $\pm 3-5\%$ deviation exists between the parameter values for the tire model and corresponding values obtained from full-scale testing. This was expected on the basis of the material and technology used for tire production. The data from this study show that simulation is an effective method for determining the operational characteristics of automobile tires. Orig. art. has: 5 figures, 6 formulas.

SUB CODE: 13/ SUBM DATE: None/ ORIG REF: 002

Card 2/2 *egh*

LEVIN, S.L.; TSUKERBERG, S.M.

Problems in the development of tubeless tires. Kauch. i rez.
16 no.11:9-15 N '57. (MIRA 11:2)

(Tires, Rubber)

BIDERMAN, Vadim L'vovich; GUSLITSER, Ruvim L'vovich; ZAKHAROV, Sergey Petrovich; NENAKHOV, Boris Viktorovich; SELEZNEV, Ivan Ivanovich; TSUKERBERG, Solomon Maksimovich; BUKHIN, B.L., red.; KOGAN, V.V., tekhn. red.

[Motor-vehicle tires; design, construction, testing, and operation] Avtomobil'nye shiny i konstruktsiia, raschet, ispytanie, ekspluatatsiia. [By] V.L.Biderman i dr. Moskva, Goskhimizdat, 1963. 382 p. (MIRA 16:12)
(Motor vehicles--Tires)

TSUKERBERG, Solomon Maksimovich; KRAMARENKO, G.V., prof., red.;
TUPITSYNA, L.A., red.; YASHUKOVA, N.V., tekhn. red.

[New motor-vehicle tires] Novye avtomobil'nye shiny. Moskva,
Rosvuzizdat, 1963. 64 p. (MIRA 16:12)
(Motor vehicles--Tires)

SOV/138-58-9-6/11

AUTHOR: Tsukerberg, S. M.

TITLE: ~~Calculations on Tubeless Tyres~~ (K raschetu beskamernykh shin)

PERIODICAL: Kauchuk i Rezina, 1966, Nr 9, pp 20 - 25 (USSR)

ABSTRACT: The casing of a tubeless tyre is subject to internal stress through diffusion of air into the body of the tyre. This can cause blistering, or exfoliation of the layers if any part of the tyre shows weakness. Tubeless tyre must be well bonded, and the interior hermetic layers must permit minimum diffusion. Fig.2 shows the characteristic distribution of pressure through the side wall of a tyre. The pressure drop varies as the thickness and permeability of the three main elements, i.e. the internal hermetic layer, the carcass, and the outer wall. A graphic method of analysis is shown in Fig.3. The individual elements of the tyre are drawn with "virtual" thicknesses. The thickest layer, usually the carcass, is taken as a datum. The other layers are assigned "virtual" thicknesses which are their real thickness multiplied by the ratio of the permeability of their material to the permeability of the datum layer. The "virtual" thicknesses are laid out on the abscissa.

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Calculations on Tubeless Tyres

SOV/138-58-9-6/11

and a straight line can then be drawn from the point representing the internal pressure on the ordinate to the point at atmospheric pressure on the abscissa representing the outside of the tyre. Pressure at any point in the tyre can then be determined by converting "virtual" thickness to real thickness. Figs. 5, 6 and 7 show the pressure which arises at the boundary of the internal hermetic layer and the carcass for different thicknesses of the hermetic layer. The three figures are drawn for different tyre pressures. Each figure shows curves for natural rubber, "Nairit", and butyl rubber hermetic layers, and for these materials in two different sizes of tyre (260 - 22.5 and 6.00 - 16). The curves are for material at 70°C. Experimental determination of the actual pressure at different parts of the tyre was carried out, using the apparatus described in Kauchuk i Rezina Nr 11, 1957, p 9. This indicated wide variation in pressure in the body of different tyres through factors influencing the stability of the impermeable layer. Variation in pressure, at the same thickness level, occurs in different parts of a tyre. It was shown, by work at the Moscow Tyre Factory, that the diffusion pressure in the body of

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Calculations on Tubeless Tyres

SOV/138-58-9-6/11

a tubeless tyre increases during the first 5000 km of use and then remains almost constant. A study is made of the effect of damaged or unbonded areas in the body of the tyre. The focal point at which disruption of the layers commences is assumed to be circular. Fig.9 shows the relationship of the "peeling" forces (kg/cm) with pressure (kg/cm²) within focal points of different diameters. Similar peeling forces can arise in the absence of an actual damaged or unbonded area, but where there are multiple fine pores in the body of the tyre.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Tyre Industry)

Card 3/3

TSUKERBERG, S.M.

Calculating air pressure in tubeless tires. Kauch. i rez. 17
no.9:20-25 S '58. (MIRA 11:10)

1.Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.
(Automobile--Tires)

TSUKERBERG, S., kand. tekhn. nauk; NENAKHOV, B., inzh.

Tires with air-pressure control. Avt. transp. 37 no.10:47-50
0 '59. (MIRA 13:2)

(Automobiles--Tires)

SELEZNEV, Ivan Ivanovich; TSUKERBERG, Solomon Maksimovich; NENAKHOV,
Boris Viktorovich; KOLESNIK, P.A., red.; SMIRNOVA, V.K., red.
izd-va; GALAKTIONOVA, Ye.N., tekhn.red.; DONSKAYA, G.D.,
tekhn.red.

[Means for prolonging the life of tires] Puti uvelicheniia probega
avtomobil'nykh shin. Moskva, Avtotransizdat, 1960. 47 p.
(MIRA 13:9)

(Tires, Rubber—Maintenance and repair)

Cond. Tech. Sci.

TSUKERBERG, S. M., Engineer

Dissertation: "Operational Qualities of Automobile Tires--Investigation of
of Tire Cohesion with Road."

23 Jun. 49

Moscow Highway Inst.

imeni V. M. Molotov

SO Vecheryaya Moskva
Sun 71

TSUKENBERG, S.^M, kandidat tekhnicheskikh nauk.

Selecting the type of motor truck for city transportation. Avt.
transp. 32 no.9:12-13 S '54. (MLRA 7:11)
(Motor trucks)

TSUKERBERG, S. A}.

LEVIN, S., inzhener; TSUKERBERG, S., inzhener, kandidat tekhnicheskikh nauk.

Tubeless tires. Za rul. 15 no.2:13-14 F '57. (MLRA 10:5)

1. Nachal'nik konstruktorsko-eksperimental'nogo otdela Nauchno-issledovatel'skogo instituta shimnoy promyshlennosti (for Levin).
(Automobiles--Tires) 200, 200

ARKHANGEL'SKIY, V.M.; AFANAS'YEV, L.L., doktor tekhn.nauk; DEKHTERINSKIY, L.V.;
ILARIONOV, V.A.; SERGEYEV, N.M.; TSUKERBERG, S.M.; ANOKHIN, V.I.,
kand. tekhn. nauk, retsenzent; TSETENKO, V.G., inzh., retsenzent;
YEGORKINA, L.I., red.izd-va; NAKHIMSON, V.A., red.izd-va;
SOKOLOVA, G.F., tekhn. red.

[Motor vehicles; working principle operation and repair] Avto-
mobili; ustroistvo, ekspluatatsiya i remont. Moskva, Izd-vo
"Mashinostroenie," 1964. 510 p. (MIRA 17:4)

TSUKERBERG, S.M.; NENAKHOV, B.V.; GORDON, R.K.

New kind of tires for trucks. Kauch. i rez. 20 no.9:34-38 S
'61. (MIRA 15:2)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.
(Motortrucks--Tires)

TSUKERBERG, S.M.; ZAKHAROV, S.P.; NENAKHOV, B.V.; ABRAMOVA, E.Ye.;
ZULEV, Yu.S., red.; KUPERMAN, F.Ye., red.; SPERANSKAYA, A.A.,
tekhn.red.

[High-roadability tires for motor vehicles] Shiny dla avtomo-
bilei povyshennoi prokhodimosti. Moskva, Gos.nauchno-tekhn.izd-vo
khim.lit-ry, 1960. 71 p. (MIRA 14:4)
(Motor vehicles--Tires)

~~TSUKERBERG, Solomon Makainovich; ZAKHAROV, Sergey Petrovich; MENAKHOV,~~
Boris Viktorovich; ABRAMOVA, Elena Yefimovna; GRECHKO, V.M.,
red.; DONSKAYA, G.D., tekhn.red.

[Tires for increasing the roadability of automobiles] Shiny,
povyshaiushchie prokhodimost' avtomobil'ov. Moskva, Nauchno-tekhn.
izd-vo M-va avtomobil'nogo transporta i shosseinykh dorog RSFSR,
1959. 43 p. (MIRA 12:12)

(Automobiles--Tires)

TSUKERBERG, Solomon Maksimovich

LEVIN, Samuil L'vovich; TSUKERBERG, Solomon Maksimovich; KNOROZ, M.M.,
redaktor; MAL'KOVA, N.V., tekhn.red.

[Tubeless automobile tires] Avtomobil'nye beskamernye shiny.
Moskva, Nauchno-tekhn. izd-vo avtotransp.lit-ry, 1957. 29 p.
(MIRA 10:12)

(Automobiles--Tires)

Tsukerberg, S. M.

GUSLITSER, R., inzh.; LOKHINA, P., inzh.; TSUKERBERG, S., kand. tekhn. nauk.

Selecting proper tire pressure. Avt. transp. 36 no.1:10-12 Ja '58.
(Automobiles--Tires) (MIRA 11:1)

ACC NR: AR7000841

SOURCE CODE: UR/0058/66/000/009/D043/D043

AUTHOR: Tsukerblat, B. S.

TITLE: Quantum output of ruby luminescence on the R-line

SOURCE: Ref. zh. Fizika, Abs. 9D336

REF SOURCE: Sb. Materialy IV Konferentsii molodykh uchenykh Moldavii, 1964. Sekts. fiz.-matem. Kishinev, 1965, 33-35

TOPIC TAGS: crystallography, ruby, crystal, ruby luminescence, R line ruby luminescence, luminescent crystal, ruby laser

ABSTRACT: A theory of multiphonon aradiational transitions in crystals with "small-radius" impurity centers is developed and the quantum output of ruby luminescence in the region of the R-line equal to ~ 1 at 77K and ~ 0.82 at 300K is computed. The theoretical results obtained agree satisfactorily with available experimental data. V. Khodovoy. [Translation of abstract]

[SP]

SUB CODE: 20/

Card 1/1

TSUKERBLAT, B.S.; CHEBAN, A.G.

Disintegration and formation of F^+ -centers in ionic crystals. Opt.
i spektr. 16 no.1:69-75 Ja '64. (MIRA 17:3)

L 31493-66 EWT(1)/I IJP(c)

ACC NR: AP6013022

SOURCE CODE: UR/0051/66/020/004/0657/0660

AUTHOR: Perlin, Yu. Ye.; Kovarskiy, V. A.; Tsukerblat, B. S.

50

ORG: none

8

TITLE: Contribution to the theory of many-phonon nonradiative transitions between local states of different multiplicity. I.

SOURCE: Optika i spektroskopiya, v. 20, no. 4, 1966, 657-660

TOPIC TAGS: nonradiative transition, spin orbit interaction, phonon interaction, electron interaction, *SPIN SYSTEM*

ABSTRACT: The authors analyze many-phonon nonradiative transitions between levels of different multiplicity within the framework of the adiabatic approximation. The electron-phonon interaction is assumed to be small compared with the spin-orbit interaction, and the non-adiabaticity operator is treated as the perturbation, using a method described by the authors elsewhere (FTT v. 4, 1936, 1962; Usp, fiz. nauk v. 80, 553, 1963). Possible mechanisms of many-phonon transitions are discussed, and a general formula is obtained for the probability of nonradiative transition with spin flip due to the spin-orbit interaction. The upper limiting case, when the spin-orbit interaction is small compared with the electron-

Card 1/2

UDC: 535.330: 548.0

L 31493-66

ACC NR: AP6013022

phonon interaction is considered in detail. The matrix element for the spin-orbit interaction is then regarded as the perturbation. Different expressions for the nonradiative transition are then obtained, depending on whether the electronic part of the matrix element of this transition vanishes or not. Orig. art. has: 17 formulas.

SUB CODE: 20/ SUBM DATE: 14Dec64/ ORIG REF: 004/ OTH REF: 002

Card 2/2 mc

L 09885-07 LHM(1) LHM(c) CG
ACC NR: AP6032478 SOURCE CODE: UR/0056/66/051/003/0831/0841

AUTHOR: Tsukerblat, B. S. 40

ORG: Kishinev State University (Kishinevskiy gosudarstvennyy universitet)

TITLE: Optical bands in paramagnetic crystals with degenerate impurity terms

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 3, 1966, 831-841

TOPIC TAGS: crystal, paramagnetic crystal, crystal impurity, degenerate impurity, crystal optic property, luminescent crystal, ionic crystal, adiabatic approximation, adiabatic potential splitting, phototransition

ABSTRACT: Broad electron-vibrational impurity light absorption and luminescence bands in ionic crystals containing paramagnetic local centers are investigated within the framework of the adiabatic approximation by the moment method. The effect of configurational instability of a crystal with degenerate impurity-electron levels (adiabatic potential splitting) on the optical spectrum pattern is examined. It is shown that Jahn-Teller distortion of the nuclear configuration in only

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L 09885-67

ACC NR: AP6032478

one electron state does not lead to splitting of the optical band. The theory predicts optical band splitting only in those cases when the same vibrations which are active in the Jahn-Teller effect remove the degeneracy of both electron states involved in the phototransition. Detailed calculations of the band parameters have been performed for ions of the iron group with a d^3 shell. As an example, V- and U-bands in pink ruby are considered. Orig. art. has: 2 figures and 28 formulas. [Author's abstract]

SUB CODE: 20/ SUBM DATE: 17Feb66/ ORIG REF: 011/ OTH REF: 009

Card 2/2 *6/70*

L 04753-67 EWT(1)/EWT(m)/EWP(e)/EEC(k)-2/T/EWP(k) IJP(c) WG/WH

ACC NR: AP6025948

SOURCE CODE: UR/0051/66/021/001/0013/0018

AUTHOR: Tsukerblat, B. S.; Perlin, Yu. Ye.

ORG: none

TITLE: On theory of multiphonon nonradiating transitions between the local states of dissimilar multiplicity. II. Quantum yield of ruby luminescence on the R-line (low temperatures)

SOURCE: Optika i spektroskopiya, v. 21, no. 1, 1966, 13-18

TOPIC TAGS: electron transition, nonradiative transition, transition probability, transition radiation, ruby laser, ruby optic material, phonon, phonon interaction, crystal lattice energy, crystal lattice parameter, crystal lattice vibration

ABSTRACT: The authors use the adiabatic method to calculate the probability of a multiphonon nonradiation transition ${}^2E_g \rightarrow {}^4A_{2g}$ and the quantum yield of ruby luminescence of the R-line. The interaction with optical and acoustical vibrations of the crystal lattice is taken into account. The investigated transition corresponds to the operating levels of ruby lasers and occurs in the second order of perturbation theory via the virtual state ${}^4T_{2g}$. Other virtual states can be neglected because of their low probability. Taking in account only the strongest interaction of 2E_g and ${}^4A_{2g}$

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UDC: 535.37 : 553.824.01

L 04753-67

ACC NR: AP6025948

electron energy levels with the wholly symmetrical lattice vibrations in the crystal, the adiabatic electron-oscillatory function is given by

$$\Psi(r) = \psi_r(r) \prod_{k,s} \phi_{N_{ks}}(q_{ks} - q_{ks}^0) \prod_{\lambda,\sigma} \phi_{N_{\lambda\sigma}}(q_{\lambda\sigma} - q_{\lambda\sigma}^0),$$

where $\psi_r(r)$ is the electron wave function from the crystal field theory; ϕ_n are wave functions of the harmonic oscillators; indices k, s identify wave vectors and zones of the acoustical phonons; λ, σ are correspondingly related to the photons. The values

$$q_{\lambda\sigma}^0 (\lambda = k, \sigma, \rho = s, \sigma)$$

represent the displacements of the equilibrium for the oscillators in the phonon field due to electron-phonon interactions. The authors proceed from the standard expression for the probability of multiphonon nonradiation transitions, derived by the authors in an earlier work, to develop an expression which accounts for both the phonon and photon interactions in the crystal. Based on this expression the probability of nonradiation transition ${}^2E_g + {}^4A_{2g}$ at low temperatures has a value of 1.4 sec^{-1} . Considering the lifetime of the E_g state to be $4.3 \cdot 10^{-3} \text{ sec}$ the quantum yield, in agreement with the experimental data, is practically equal to unity. Orig. art. has: 25 formulas.

SUB CODE: 20/

SUBM DATE: 17Dec64/

ORIG REF: 004/

OTH REF: 002

Card 2/2 28

L 5412-66 EWA(k)/FED/ENT(1)/EMP(e)/ENT(m)/EEC(k)-2/EMP(1)/T/EMP(k)/EWA(m)-2/EWA(h)
 ACC NR: AP5027405 SCTB/LJP(c) WG/WH SOURCE CODE: UR/0181/65/007/011/3278/3288

AUTHOR: Tsukerblat, B. S.; Perlin, Yu. Ye. 44 65

ORG: Kishinev State University (Kishinevskiy gosudrastvennyy universitet)

TITLE: On the theory of nonradiative transitions involving several phonons in localized paramagnetic centers

SOURCE: Fizika tverdogo tela, v. 7, no. 11, 1965, 3278-3288

TOPIC TAGS: phonon interaction, nonradiative transition, ruby laser

ABSTRACT: The authors calculate the probability of nonradiative multiphonon transitions between the orbital triplets ${}^4T_{2g}$ and ${}^2T_{1g}$ in the Cr^{3+} ion (as well as in other ions with d^3 configuration) in an octahedral crystal field. This transition is the "bottleneck" in the relaxation process for population inversion in the working levels of a ruby laser (the single-quantum ${}^2T_{1g} \rightarrow {}^2E_g$ transition takes place at a much faster rate). States of various multiplicity are considered. The spin-orbital interaction of the Cr^{3+} ion is small in comparison with the effective crystal field and may be treated as a perturbation which causes the multiphonon transi-

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L 5412-66

ACC NR: AP5027405

tion. The formula for the transition is derived in the adiabatic approximation, taking the Jahn-Teller effect into account. Since the introduction of a chromium ion in place of aluminum in the corundum lattice (Al_2O_3) does not generate quasi-molecular (localized) vibrations, a small number of variables will not suffice to describe the electron-vibration system. The final results are considerably dependent on the parameters of the crystal. The greatest contribution to the probability of the transition is from processes with simultaneous participation of longitudinal and transverse acoustic phonons. The authors thank I. B. Bersuker and B. G. Vekhter for useful consultation. Orig. art. has: 40 formulas, 1 table.

SUB CODE: SS/

SUBM DATE: 28May65/

ORIG REF: 007/

OTH REF: 011

BYK

Card 2/2

PERLIN, Yu.Ye.; CHEBAN, A.G.; TSUKERBLAT, B.S.

Theory of the capture and scattering of polarons by F-centers.

Uch. zap. Kish. un. 49:11-18 '61.

(MIRA 15:7)

(Electrons--Scattering) (Electrons--Capture) (Quantum theory)

ACCESSION NR: AP4011486

8/0051/64/016/001/0069/0075

AUTHOR: Tsukerblat, B.S.; Cheban, A.G.

TITLE: Disintegration and formation of F' centers in ionic crystals

SOURCE: Optika i spektroskopiya, v.16, no.1, 1964, 69-75

TOPIC TAGS: ionic crystal, F center, F' center, F center formation, F center annihilation, polaron trapping cross section, polaron scattering cross section, many-phonon transitions, one-phonon transitions, color center, potassium bromide

ABSTRACT: In earlier papers by the authors (A.G.Cheban, Opt.i spektr.10,493,1961; Yu.Ye.Perlin, A.G.Cheban and B.S.Tsukerblat, Uch.zap.Kishinevsk.univ, Seriya fiz.49,11, 1961; A.G.Cheban, Ibid.49,19,1961) there were considered thermal ionization of F' centers and the inverse process: direct many-phonon trapping of a polaron by an F center with formation of an unexcited F' center. It was shown that, in addition to the ground state, an F' center has at least one discrete level, which corresponds to motion of an undeformed polaron in an effective short-range field. In the present paper there are considered two possible mechanisms of thermal trapping (capture) of a

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ACC.NR: AP4011486

polaron by an F center in ionic crystals: the many-phonon and the single phonon processes. Equations are derived for the total trapping cross section and for the cross section for scattering of a polaron by an F center with the formation of an unexcited F' center at an intermediate stage. For purposes of illustration the trapping and scattering cross sections are calculated for the specific case of KBr, and the results of the calculations are compared with the experimental data of A.C.Redfield (Phys.Rev.94,537,1954). The agreement is considered to be satisfactory: the calculated total trapping cross section for KBr at 200°K is $7.1 \times 10^{-14} \text{ cm}^2$; the corresponding experimental value is $2 \times 10^{-14} \text{ cm}^2$. Detailed expressions for some of the parameters entering into the computation formulas are given in an appendix. "The authors are pleased to express their gratitude to Yu.Ye.Perlin for assistance in the work!"
Orig.art.has: 56 formulas.

ASSOCIATION: none

SUBMITTED: 11Mar63

DATE ACQ: 14Jul64

ENCL: 00

SUB CODE: PH

NR REF SOV: 00

OTHER: 002

Card 2/2

BOYARSKAYA, Yu.S.; VAL'KOVSKAYA, M.I.; TSUKERBLAT, B.S.

Effect of elastic spring-back on the shape of indents made in
microhardness measurements. Uch. zap. Kish. un. 49:32-38 '61.
(MIRA 15:7)

(Strength of materials--Measurement) (Elasticity)

ACC NR: AF7005333

SOURCE CODE: UR/0181/66/003/012/3490/3499

AUTHOR: Perlin, Yu. Ye.; Rozenfel'd, Yu. B.; Tsukerblat, B. S.

ORG: Kishinev State University (Kishinevskiy gosudarstvennyy universitet)

TITLE: On the nature of the optical impurity absorption bands and luminescence of crystals activated with rare-earth ions

SOURCE: Fizika tverdogo tela, v. 8, no. 12, 1966, 3490-3499

TOPIC TAGS: activated crystal, luminescence, absorption band, light absorption, impurity center, Stark effect, phonon interaction, electron interaction

ABSTRACT: In view of the fact that the classical theory of the crystalline field, which takes into account the Stark splitting of the levels of the impurity ion by the quenched lattice, is insufficient for the interpretation of the spectra of impurity absorption and luminescence of trivalent ions of rare-earth elements (TR^{3+}) in crystals of the MeF_2 type, the authors employ the theory of impurity light absorption and luminescence in crystals, developed by M. A. Krivoglaz and S. I. Pekar (Trudy, Physics Institute, AN UkrSSR, v. 4, 37, 1953), to explain the influence of electron-phonon interaction on the shape of the impurity absorption or luminescence spectra in the $MeF_2:Ce^{3+}$ spectrum. The concrete examples considered are the $4f \rightarrow 5d$ transitions in the crystals CaS_2 , BeF_2 , and SrF_2 activated with Ce^{3+} . The interaction between the outer electrons of a small-radius local center with optical and acoustical vibrations of the crystal is taken into account in the adiabatic approximation. It is shown that

Card 1/2

ACC NR: AF7005833

the presence of local oscillations can lead, under certain conditions, to a periodic distribution of intensity in the optical spectrum. The parameters of the optical bands are calculated and a level scheme for the Ce^{3+} in the cubic crystalline field is presented. The theoretical calculations are compared with the experimental data of A. A. Kaplyanskiy et al. (Opt. i spektr. v. 14, 664, 1963) and reasons for some discrepancies are indicated. The authors thank S. I. Pekar, A. A. Kaplyanskiy, and B. Z. Malkin for useful discussion. Orig. art. has: 1 figure, 30 formulas, and 1 table.

SUB CODE: 20/ SUBM DATE: 25Mar66/ ORIG REF: 011/ OTH REF: 004

Card 2/2

MAKSIMOV, A.B., prepodavatel'; TSUKERKANDEL', A.P., prepodavatel'

"Handbook of the foreman in charge of the tools in a woodworking enterprise." Reviewed by A.B. Maksimov, A.P. Tsukerkandel'.
Der.prom. 11 no.3:27 Mr '62. (MIRA 15:2)

1. Mekhaniko-tehnologicheskiiy tekhnikum, g. Novosibirsk.
(Woodworking machinery)

TSUKERMAN, A. Ye.

Tsukerman, A. Ye. "A corrective corset for treatment of serious forms of scoliosis,"
In symposium: Uchen. zapiski (Ukr. tsentr. nauch.-issled. in-t ortopedii i travmatologii
im. Sitenko), Khar'kov, 1948, p. 171-77

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

TSUKERMAN, A.; STOYKA, Ye.; STUNGARU, G.

Effect of cortical tonus on food excitability (appetite). Zhur.
vys.nerv.deiat 8 no.2:220-225 '58. (MIRA 13:1)

1. Danielopulu Institute of Normal and Pathological Physiology,
Academy of Rumanian People's Republic, and Chair of Normal and
Pathological Physiology, Institute for the Advanced Training of
Physicians, Bukharest.

(CEREBRAL CORTEX, physiology,
eff. of tonys on appetete (Rus)

(APPETITE, physiology,
eff. of cerebrocortical tonus (Rus))

Miscellaneous

W E

1401 A SIMPLER METHOD FOR OBTAINING X-RAY PHOTO-
GRAPHS WITH A VERY SHORT EXPOSURE. Zucker-
man (Zuckerman) & Avdeenko. (Journ. of Tech-
nology [in Russian], No. 4/5, Vol. 12, 1947,
pp. 184-194.)

A brief survey is made of the existing methods for
obtaining short exposure X-ray photographs and a
report is given on an experimental investigation. One
of the conclusions reached is that a standard X-ray
equipment can be so modified as to give, under factory
conditions, photographs of simple objects with an
exposure of the order of a few microseconds without the
use of an impulse generator or a special impulse tube.

KIRZON, M.V.; KOL'S, O.R.; TSUKERMAN, A.M.

Further investigation on the novocain stimulating and blocking of nervous
conduction and the products of its disintergration in the organism.
Vest. khir. 71 no.2:74 1951. (CIML 20:8)

TSUKERMAN, A. M.

KIRZON, M.V.; KOL'S, O.R.; TSUKERMAN, A.M.

Stimulating effect of novocaine on interoceptors. Trudy AMN
(MLRA 7:7)
SSSR 24 no.2:82-99 '53.
(PROCAINE, effects,
*on interoceptive appar. of various organs in frog)

TSUKHERMAN, A.M., GURVICH, N.L.

Arrest of experimental auricular fibrillation by electrical defibrillation of the auricles [with summary in English]. *Exper.khir.* 1 no.3:38-44 My-Je '56 (MIRA 11:10)

1. Iz Instituta khirurgii imeni A.V. Vishnevskogo (dir. -- chlen-korrespondent AMN SSSR prof. A.A. Vishnevskiy) AMN i laboratorii eksperimental'noy fiziologii (zav. - prof. V.A. Nagovskiy) AMN SSSR.
(AURICULAR FIBRILLATION, exper.
eff. of electric defibrillation in dogs (Rus))

VAN NES, K.; VAN WESTERN, H.A.; PLATE, A.F., doktor khimicheskikh nauk
[translator], redaktor; TSUKERMAN, A.M., redaktor; KORNILOV, B.I.,
tekhnicheskii redaktor.

[Aspects of the constitution of mineral oils] Sostav maslianykh
fraktsii nefiti i ikh analiz. Perevod s angliiskogo. . Perevod, re-
daksiia i primechania A.F.Plate. Moskva, Izd-vo inostran.lit-ry.
1954. 263 p. (MLRA 8:2)
(Petroleum--Analysis)

CHIBISOV, K.V., redaktor; KHEYNMAN, A.S. [translator]; TSUKERMAN, A.M.,
redaktor; SHAPOVALOV, V.I., tekhnicheskiy redaktor.

[The physical chemistry of photographic processes] Fizicheskaya khimiya
fotograficheskikh protsessov; sbornik statei. Perevod s angliiskogo
A.S.Kheinmana. Moskva, Izd-vo inostrannoi lit-ry, 1954. 488 p.
[Microfilm] (MIRA 8:1)

1. Chlen-korrespondent Akademii Nauk SSSR (for Chibisov).
(Photographic chemistry)

TSUKERMAN, A.M.

SMIRNOV, V.I., redaktor; ZNAMENSKAYA, V.I., redaktor; ~~TSUKERMAN, A.M.~~,
redaktor; VITOVSKAYA, I.V. [translator]; GALDIN, N.E. [translator];
GOTMAN, Ya.D. [translator]; KONSTANTINOV, M.M. [translator]; GERASI-
MOVA, Ye.S., tekhnicheskiy redaktor.

[Geochemical methods of prospecting for ore deposits; collection of
articles] Geokhimicheskie metody poiskov rudnykh mestorozhdenii; sbornik
statei. Perevod s angliiskogo i nemetskogo I.V.Vitovskoi, N.E.Galdina,
IA.D.Gotmana i M.M.Konstantinova. Moskva, Izd-vo inostrannoi lit-ry,
1954. 582 p. [Microfilm] (MLRA 8:1)
(Geochemical prospecting)

TSUKERMAN 1919
TERENT'YEV, A.P.; KOST, A.N.; TSUKERMAN, A.M.; POTAPOV, V.M.;
SERGEYEV, P.G., professor, redaktor; STRUCHKOV, Yu.T.,
redaktor; MOSKVICHEVA, N.I., tekhnicheskii redaktor.

[Nomenclature of organic compounds; survey, criticism,
proposals] Nomenklatura organicheskikh soedinenii;
obzor, kritika, predlozhenia. Moskva, Izd-vo Akademii
nauk SSSR, 1955. 302 p. (MLRA 8:12)
(Chemistry, Organic--Nomenclature)

TSUKERMAN, A.M.

BRINDLEY, G.W.; ZVIAGIN, B.B. [translator]; FRANK-KAMENETSKAYA, T.A.,
[translator] redaktor; TSUKERMAN, A.M., redaktor; GRIBOVA, M.P.
tekhnicheskii redaktor.

[X-ray identification and crystal structures of clay minerals;
collection of articles. Translated from the English] Rentgenovskie
metody opredeleniia i kristallicheskoie stroenie mineratov glin;
sbornik statei. Perevod s angliiskogo B.B.Zviagina i T.A.Frank-
Kamenetskoi. Pod red. i s predisl. V.A.Frank-Kamenetskogo. Moskva,
izd-vo inostrannoi lit-ry, 1955. 402 p. (MLRA 8:11)
(Clay) (X-rays)

TERENT'YEV, A.P.; POTAPOV, V.M.; KOST, A.N.; TSUKERMAN, A.M.

Systematic nomenclature of organic compounds. Vest. Mosk. un
no.6:97-134 Je'55. (MLRA 9:1)

1. Kafedra spetsial'nogo organicheskogo sintesa.
(Chemistry, Organic--Nomenclature)

USSR/Chemistry - Nomenclature

Tsukerman, A.M.

FD-1683

Card 1/1 : Pub. 129-8/25

Author : Terent'yev, A. P.; Kost, A. N.; Tsukerman, A. M.

Title : A new system of numbering atoms in condensed cyclic structures

Periodical : Vest. Mosk. un., Ser. fizikom. 1 yest. nauk, Vol. 10 69-76. Feb 1955

Abstract : Proposes a new system for numbering condensed cyclic molecules which depends on the structure of the compound and therefore can be used for both carbo- and heterocyclic structures. The atoms in the condensed cyclic structures are divided into four classes depending on whether they are non-junctional, junctional, junctional with three structural atoms, or junctional with four structural atoms. Diagrams; eight references (one USSR).

Institution : Chair of Organic Chemistry

Submitted : April 14, 1954

TSUKERMAN, A.M.

In the organic chemistry section of the Moscow Branch of the
D.I. Mendeleev All-Union Chemistry Society. Khim.nauka i prom.
2 no.5:654-655 '57. (MIRA 10:12)
(Moscow--Organic chemistry)

TSUKFRMAN, A.M.

Translation of chemical nomenclature; algorithm of the translation
of the names of cross-linking [condensed] polycyclic structures.

NTI no.4:23-30 '65.

(MIRA 18:6)

IVANOVSKIY, F.P., kand. tekhn. nauk, red.; FURMAN, M.S., doktor khim.nauk, red.; SAMARIN, B.P., red.; KRICHEVSKIY, I.R., prof., doktor khim. nauk, red.; GOLUBEV, I.F., doktor tekhn.nauk, red.; KRASIL'SHCHIKOV, A.I., doktor khim. nauk, red.; KLEVKE, V.A., kand. tekhn. nauk, red.; LEVCHENKO, G.T., kand. khim. nauk, red.; GEL'PERIN, I.I., kand. tekhn. nauk, red.; OYSTRakh, M.L., red.; KREYSBERG, A.Ya., red.; TSUKERMAN, A.M., red.; KOGAN, V.V., tekhn. red.

[Chemistry and technology of the products of organic synthesis; intermediate products for the synthesis of polyamides] Khimiia i tekhnologiya produktov organicheskogo sinteza; poluprodukty dlia sinteza poliamidov. Moskva, Goskhimizdat, 1963. 255 p. (MIRA 17:3)

1. Moscow. Gosudarstvennyy nauchno-issledovatel'skiy i proyekt-nyy institut azotnoy promyshlennosti. 2. Zamestitel' direktora Gosudarstvennogo nauchno-issledovatel'skogo i proyektного instituta azotnoy promyshlennosti (for Ivanovskiy). 3. Zamestitel' direktora po nauchnoy chasti Gosudarstvennogo nauchno-issledovatel'skogo i proyektного instituta azotnoy promyshlennosti (for Furman). 4. Glavnyy inzhener Gosudarstvennogo nauchno-issledovatel'skogo i proyektного instituta azotnoy promyshlennosti (for Samarin). .

TSUKERMAN, A.M.

New stimulants of growth. Nauka i zhizn' 30 no.5:36 My '63.
(MIRA 16:10)

KORBUT, V.A. (Leningrad); TSUKERMAN, A.M.

What is the right name for element 101. Priroda 52 no.8:124-125
Ag '63. (MIRA 16:9)

1. Komissiya po nomenklature khimicheskikh soyedineniy AN SSSR,
Moskva (for TSukerman).

(Mendeleevium)

TERENT'YEV, A.P.; TSUKERMAN, A.M.

New method of identification of organic compounds by their
fusion point. Trudy Khim. anal. khim. 13:54-58 '63. (MIRA 16:5)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Organic compounds) (Melting points)

TSUKERMAN, A.M.; STETSYURA, G.G.

Concerning the automation of the conversion of the names of organic compounds to a standard form, and the conversion of structural formulas to systematic names. Soob. LEM AN SSSR no.1:241-248 '60. (MIRA 15:2)

(Chemistry, Organic)
(Information theory)

TERENT'YEV, A.P., otv.red.; ALIMARIN, I.P., red.; GEL'MAN, N.E., red.;
KLIMOVA, V.A., red.; KRESHKOV, A.P., red.; KUZNETSOV, V.I., red.;
LEVIN, E.S., red.; PODGAYSKAYA, Z.I., red.; RUKHADZE, Ye.G., red.;
TAL'ROZE, V.L., red.; TSUKERMAN, A.M., red.; SHEMYAKIN, F.M., red.;
SHEYNKER, Yu.N., red.; YERMAKOV, M.S., tekhn.red.

[Conference on organic analysis] Soveshchanie po organicheskomu
analizu. Tezisy dokladov. Moskva, Izd-vo Mosk.univ., 1961. 170 p.
(MIRA 14:4)

1. Soveshchaniye po organicheskomu analizu. 1961.
(Chemistry, Analytical--Congresses)
(Chemistry, Organic--Congresses)

TSUKERMAN, A. P., (Kiyev)

Problem of classification of chronic suppurative otitis media in
otolaryngological expert evaluation. Vest. otorin. no.5:23-25
'61. (MIRA 14:12)

(EAR—DISEASES) (DISABILITY EVALUATION)

TSUKERMAN, A. Ye., zasluzhennyi vrach UkrSSR

Apparatotherapy in paralytic scoliosis. Trudy Ukr. nauch.-issledovatel'skogo instituta ortopedii i travmatologii. Trudy ukr. nauch.-issl. inst. ortop. i travm. no.15:49-58 '59 (MIRA 16:12)

1. Iz Ukrain'skogo nauchno-issledovatel'skogo instituta ortopedii i travmatologii imeni prof. M.I.Sitenko (dir. - chlen-korrespondent AMN SSSR, prof. N.P.Novachenko).

TSUKERMAN, B. A.
L. V. ALTSHULER, ZhTF, 13, 265-80(1943)

27.2700

39916

S/044/62/000/007/096/100

C111/C333

AUTHORS:

Tsukerman, B. G., Kozhin, A. M., Pakhomov, A. F.

TITLE:

The influence of noise on the reading of scales on control and measuring equipments

PERIODICAL:

Referativnyy zhurnal, Matematika, no. 7, 1962, 81, abstract 7V397. ("Dokl. Akad. ped. nauk RSFSR", 1961, no. 3, 87-90)

TEXT:

The paper deals with an experimental examination of the influence of short - not fatigue causing - noises without signal character on the receptivity of optical information imparted by control and measuring equipments. Method: The scale of the apparatus was exposed by the test person with the help of a shutter tachistoscope; in some trials short (0.5 seconds) expositions were given, in other the test person closed the shutter of the tachistoscope himself after reading off the information. The following results were obtained: 1) White noises of a non-signal type having the intensity of 90 decibels and lasting 10 minutes have no influence on the reading of the information. The speed and exactness of the reading change only after a 15-20 minute noise influence. 2) The decrease in the speed and exactness of the reading

Card 1/2

The influence of noise on the . . .

S/044/'62/000/007/096/100
C111/C333

with the increasing duration of the noise points to a fatiguing effect.
3) The influence of the noise is noticable in stronger measure when
reading more complex (for the perception) information from the control
and measuring equipments.

[Abstracter's note: Complete translation.]

Card 2/2

TSUKERMAN, B.I.

Paramagnetic spectrum of trivalent chromium in aluminum nitrate.
Zhur.strukt.khim. 4 no.4:625-627 J1-Ag '63. (MIRA 16:9)
(Chromium—spectra) (Aluminum nitrate crystals)

S/181/63/005/001/021/064
B102/B186

247700
AUTHORS:

Tsukerman, B. I., and Vinetskaya, M. A.

TITLE:

Interpretation of paramagnetic resonance spectra of crystals

PERIODICAL:

Fizika tverdogo tela, v. 5, no. 1, 1963, 129-136

TEXT: A method is developed which allows of determining the parameters of the spin Hamiltonian of a paramagnetic ion from the spectroscopically observed paramagnetic resonance at a properly chosen frequency. A corresponding method of calculation is described which is especially simple for certain magnetic-field orientations where the total set of resonances can be observed. The energy operator can be given unambiguously but with plus-minus indeterminacy. The spin Hamiltonian is given by

$$\mathcal{H} = \beta(g_x H_x S_x + g_y H_y S_y + g_z H_z S_z) - B. \quad (1)$$

where g_x, g_y, g_z , the spectroscopic splitting constants and the operator B determine the interaction of the paramagnetic ion with the lattice field. Paramagnetic resonance is observed at $\epsilon_1 - \epsilon_2 = h\nu$ where ν is the frequency.

Card 1/5

Interpretation of paramagnetic ...

S/181/63/005/001/021/064
B102/B186

spectroscope frequency and $\epsilon_{1,2}$ are the energies in the states $\psi_{1,2}$. If $\psi_{-s}, \psi_{-s+1}, \dots, \psi_s$ forms any orthonormalized set of wave-functions in the given space, one can go over to a new space R^2 of the order $(2s+1)^2$ based on all possible normal products $\psi_i \psi_j$. The transition from operator \mathcal{H} to operator \mathcal{H}' acting in R^2 is described by

$$\begin{aligned} \mathcal{H}\psi_1 &= \epsilon_1 \psi_1 \quad \mathcal{H}\psi_2 = \epsilon_2 \psi_2 \\ \mathcal{H}'(\psi_i \psi_j) &= (\mathcal{H}\psi_i) \psi_j - \psi_i (\mathcal{H}\psi_j) \quad \mathcal{H}'\psi_1 \psi_2 = (\epsilon_1 - \epsilon_2) \psi_1 \psi_2 \end{aligned}$$

$\epsilon_{1,2}$ are the eigenvalues of \mathcal{H} , $\epsilon_1 - \epsilon_2$ is that of \mathcal{H}' . For R^2 , a semi-space of R^2 one obtains .

Card 2/5

S/181/63/005/001/021/064

B102/B186

Interpretation of paramagnetic ...

$$\begin{aligned} \det(\mathcal{H}' - vE) &= \det(\mathcal{H}'(v) - vE) = \det\left(E + \frac{1}{v} \mathcal{H}'(v)(E - E_1)\right) \times \\ &\times (\mathcal{H}'(v) - vE) \left(E + \frac{1}{v} (E - E_1) \mathcal{H}'(v)\right) = \\ &= (-v)^{2s+1} \det\left(S'_r H - E_1 B'(v) E_1 + \frac{1}{v} B'(v)(E - E_1) B'(v) - vE_1\right) = \\ &= (-v)^{2s+1} \det(S'_r H - B). \end{aligned} \quad (6)$$

with

$$\begin{aligned} \langle ij | B | kl \rangle &= \langle i | B(v) | k \rangle \delta_{jl} - \langle j | B(v) | l \rangle \delta_{ik} - \\ &- \frac{1}{v} \langle i | B(v) | j \rangle \langle l | B(v) | k \rangle \delta_{il} - \langle i | B(v) | j \rangle \langle k | B(v) | l \rangle \delta_{jk} - \\ &- \langle j | B(v) | i \rangle \langle l | B(v) | k \rangle \delta_{il} + \langle j | B(v) | i \rangle \langle k | B(v) | l \rangle \delta_{jk} + v \delta_{ik} \delta_{jl}. \end{aligned} \quad (7)$$

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Interpretation of paramagnetic ...

S/181/63/005/001/021/064
B102/B186

The operator $P = \sum_{\mu=0}^{s(2s+1)} H_{2\mu}^{2\mu} P_{2\mu}$ is introduced, for which

$$P_{2s(2s+1)} = (g_x^2 H_x^2 + g_y^2 H_y^2 + g_z^2 H_z^2)^{s(2s+1)} = H^{2s(2s+1)}$$

This polynomial can be represented by the operators A and B, as

$$P_{2s(2s+1)-2} = -\frac{1}{2} \sum_{i \neq j, k \neq l} \frac{1}{(i-j)(k-l)} \langle ij|B|kl \rangle \langle kl|B|ij \rangle = (\Lambda B(v), B(v)) + av^2, \quad (8).$$

It is shown how the B-matrix can be determined so that for any v (v denotes a rotation that turns the vector $\{g_x H_x, g_y H_y, g_z H_z\}$ into the OZ direction) the corresponding v-value can be found. If this v is compared

Card 4/5

Interpretation of paramagnetic ...

S/181/63/005/001/021/064
B102/B186

with the true frequency, the coefficients of B and the g-factors can be found. As an example the paramagnetic resonance of Cr^{3+} in TiO_2 is considered ($\nu = 0.5 \text{ cm}^{-1}$) and the coefficients of the secular equation are calculated. There are 1 table and 1 figure.

SUBMITTED: July 23, 1962

Card 5/5

35258

S/070/62/007/002/004/022
E132/E160

247/00

AUTHORS: Tsukerman, B.I., Meyl'man, M.L., and Sorokina, L.P.
TITLE: Radiospectroscopic orientation of crystals
PERIODICAL: Kristallografiya, v.7, no.2, 1962, 224-228
TEXT: The method described can be used for the orientation of crystals with paramagnetic impurities with an accuracy of about 1'. A simple two circle goniometer is used to turn the crystal specimen in the resonator chamber. The loci of particular resonances are followed and the courses are plotted out on a specially constructed sphere. From the shape of the loci the symmetry of the crystal can be identified. Some qualitative analysis of the nature of the paramagnetic impurities can be made. There are 5 figures.
SUBMITTED: April 18, 1961

Card 1/1

TSUKERMAN, B.I.; MEYL'MAN, M.L.; SOROKINA, L.P.

Radiospectroscopic orientation of crystals. Kristallografiia 7
no.2:224-228 Mr-Ap '62. (MIRA 15:4)
(X-rays crystallography)

1ST AND 2ND ORDERS		PROCESSES AND PROPERTIES INDEX	
<p><i>co</i></p> <p>The quality of casein used in treating leather R Meditskaya and B. Tsukerman. <i>Fiziol. Nauch. Issledovani. Inst. Koshrennoi Prom. Sbornik Rabot</i> 10, 245-246 (1958). Tests were made for the purpose of establishing the suitability of casein as a film former on leather. With first-grade casein (gluing ability 0.30-1.33 kg. cm. transparency 0.63-0.70), cracks appear on the film only after 30 min. on heating to 50°; only such casein can be used. The required elastic properties can be attained only with thin films with the use of glycerol and alizarin oil as plasticizers. The alizarin oil used must produce an emulsion which should not break up in 2-3 days, and which should contain at least 3.5% of SO₂ combined with organic substances.</p> <p>A. A. Hochling</p>		29	
<p>ASB-51A METALLURGICAL LITERATURE CLASSIFICATION</p>			

B-3-1

bc

PREPARING VELOUR FROM REJECTED PIG SKINS. V. A. Goldshein and B. I. Tukerman (Tsentr. Nauch. Issl. Inst. Kosh. Prom. Sborn. Rabot, 1984, No. 8, 36--37).-- The processes of soaking, treatment with Na_2S and CaO , softeners, bisulphite, and pickling are described. The product is tanned with chrome extract (Cr_2O_3 1.8, H_2O 80%, basicity 45). The finishing and dyeing are described. Ch. Abs.(e)

ABB-5.1A METALLURGICAL LITERATURE CLASSIFICATION

FROM SYNDICATE

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13

CA

Cleaning valves of internal-combustion engines. A. S. Yeliner and H. E. Taukerman. U.S.S.R. 67,114, Sept. 30, 1946. To remove deposited lead, valves are treated with a mixt. of AcOH and Na acetate at pH about 3.6 in the presence of Zn dust. M. Hosen

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

830N-57083LW 101760 HLP ONV 501

830N-60W17W 830N-60W17W 830N-60W17W

SOV/177-58-4-22/32

AUTHORS: Zyatyushkov, A.I., Colonel of the Medical Corps,
Candidate of Medical Sciences, and Tsukerman, B.G.

TITLE: The Accommodations and Sick Rate of Submarine Crews
(Usloviya obitayemosti i zabolevayemosti lichnogo sostava
na podvodnykh lodkakh) According to Data From Foreign
Publications (Po dannym inostrannoy pechati)

PERIODICAL: Voenno-meditsinskiy zhurnal, 1958, Nr 4, pp 74-80 (USSR)

ABSTRACT: The article is founded on data from American, German and
Italian literature. There is 1 table.

Card 1/1

4.
TSUKERMAN, B. I.; VINETSKAYA, M. A.

Interpretation of paramagnetic resonance spectra in crystals.
Fiz. tver. tela 5 no.1:129-136 Ja '63. (MIRA 16:1)

(Paramagnetic resonance and relaxation)
(Crystals)

Comparison of domestic (Russian) and foreign casein body colors. H. I. Tsukerman. *Kozhenna-Obozrazheniya*, 1936, *Pril.* 15, Suppl. to No. 1, 66-7 (1936); *Chem. Zentr.* 1936, II, 1829.—The Russian and foreign products were compared by measuring particle size, velocity of sedimentation, permeability of the film to water, structure of the film, etc.

M. G. M.

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A 9 D. 56 A METALLURGICAL LITERATURE CLASSIFICATION

VISHNEVSKIY, A.A., prof.; GALANKIN, N.K., doktor med. nauk; ARAPCV, A.D.; AKHMETOV, A.M.; VINITSKAYA, R.S., kand. biol. nauk; VOLYNSKIY, Yu.D.; DARBINYAN, T.M., kand. med. nauk; DONETSKIY, D.A., kand. med. nauk; KLEMENOVA, Ye.S.; KUDRYAVTSEVA, A.M., kand. med. nauk; KRYMSKIY, L.D., kand. med. nauk; LOKSHINA, K.A.; MAZAYEV, P.N., prof.; PANOVA, Yu.M.; PROMTOVA, T.N., kand. biol. nauk; PYL'TSOV, I.M.; SERGEYEVA, K.A., kand. med. nauk; KHARNAS, S.Sh., kand. med. nauk; KHRUSHCHEVA, kand. med. nauk; TSUKERMAN, B.M., kand. biol. nauk; SHIK, L.L., prof.; GOL'DGAMMER, K.K., red.; BALDINA, N.F., tekhn. red.

[Congenital defects of the heart and large vessels] Vrozhdennye poroki serdtsa i krupnykh sosudov; rukovodstvo dlia vrachei. Moskva, Medgiz, 1962. 577 p. (MIRA 16:1)

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(CARDIOVASCULAR SYSTEM—DISEASES)

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(VENTRICULAR FIBRILLATION, experimental,
restoration of cardiac funct. after arrest (Rus))

(CARDIAC ARREST, experimental,
in ventric. fibril., restoration of cardiac funct. (Rus))

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SMAYLIŠ, A.I.; TSUKERMAN, B.M.

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(PULMONARY EMBOLISM AND THROMBOSIS, exper.
diag. & surg. in dogs) (Rus)

TSUKERMAN, B. M.,

GALANKIN, N. K.; TSUKERMAN, B. M.

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nyy chlen Akademii meditsinskikh nauk SSSR, zasluzhennyy deyatel'
nauki, prof. A. A. Vishnevskiy) AMN SSSR.
(CARDIOVASCULAR DEFECTS, CONGENITAL, surg.
truncus arteriosus)

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KRYMSKIY, L.D., kand.med.nauk (Moskva, B-140, Krasnoprudnaya ul., d.
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(HEART, pathology

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(CARDIAC ARREST,

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